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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/883,208	06/19/2001	Stephane Coulombe	05245.00006	9863

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EXAMINER

NGUYEN, PHUOC H

ART UNIT	PAPER NUMBER
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2143

DATE MAILED: 10/21/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/883,208

Applicant(s)

COULOMBE ET AL.

Examiner

Phuoc H. Nguyen

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 24 July 2002.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-50 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 50 is/are allowed.
- 6) ☒ Claim(s) 1-6, 9-12, 15-24, 27, 28, 31-45, 48, and 49 is/are rejected.
- 7) ☒ Claim(s) 7, 8, 13, 14, 25, 26, 29, 30, 46 and 47 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Claim Rejections - 35 USC § 102

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

2. Claims 1-6,9-12,15-24,27,28,31-45,48, and 49 rejected under 35 U.S.C. 102(e) as being anticipated by Yano et al (Hereafter, Yano) U.S. Pat. No. 6,701,372.

3. Regarding claims 1,22,35,45, and 49, Yano discloses system and method to measure a perceived bit rate between a client and a server (Figures 4 and 15), the method comprising: (1) measuring a number of bits transmitted between the client and the server over a time period, wherein: the number of bits measured are included only within at least one transaction unit, and the time period is a sum of time durations of each of the at least one transaction unit (col. 3 lines 57 through col. 4 lines 3; col. 5 lines 60 through col. 5, lines 26; and col. 13, last paragraph).

4. Regarding claim 2, Yano discloses the number of bits measured are included in a plurality of transaction units, and the time period is the sum of the time durations of each of the plurality of transaction units (col. 7 lines 48 through col. 8 lines 24; and col. 10, lines 34-46).

5. Regarding claims 3,23, and 36, Yano discloses act (1) is performed on the server and a respective one of the time durations is an amount of time from a beginning of a

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transmission, from the server, of a first response within the respective transaction unit to a time of a receipt, by the server, of a last acknowledgement within the respective transaction unit (Figures 10-11; and col. 9 lines 38-58).

6. Regarding claims 4,24, and 37, Yano discloses (2) adapting, by the server, of content to be sent to the client based on a measurement determined during act (1) (col. 12 lines 48-54).

7. Regarding claims 5, and 38, Yano discloses act (2) comprises adapting a type of the content to be sent to the client based on the measurement determined during act (1) (col. 12 lines 45-65).

8. Regarding claim 6, Yano discloses act (2) further comprises adapting a resolution of an image to be sent to the client (col. 12 lines 26-65).

9. Regarding claims 9,27, and 39, Yano discloses act (1) is performed on the client and a respective one of the time durations is an amount of time from a beginning of a transmission of a first request, from the client, within the respective transaction unit to a time of a receipt, by the client, of a last response within the respective transaction unit (Figures 10-11; and col. 9 lines 28-58).

10. Regarding claims 10,28,40, and 48, Yano discloses (2) reporting a bit rate to the server from the client, the bit rate being based on a measurement obtained during act (1) (Figure 1; col. 3 lines 14-29).

11. Regarding claim 11, Yano discloses (3) adapting, by the server, of content to be sent to the client based on the bit rate reported during act (2) (col. 3 lines 14-29).

12. Regarding claim 12, Yano discloses act (3) comprises adapting a type of the content to be sent to the client from the server (col. 3 lines 14-29).

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13. Regarding claims 15-17, Yano discloses the bit rate is reported in a form of a range of bit rates, an exact bit rate, and a plurality of types, each type reflecting a relative speed of the bit rate (col. 5 last paragraph through col. 5 1st paragraph; col. 10, lines 35-61; and col. 12, lines 36-57).

14. Regarding claims 18,31, and 41, Yano discloses act (1) is performed at an application level within the client, such that a perceived bit rate is measured for a plurality of applications executing on the client (Figures 10 and 11).

15. Regarding claims 19,32, and 42, Yano discloses the reporting of the bit rate to the server is performed for each of the plurality of applications (Figure 1; and col. 3 lines 14-29).

16. Regarding claims 20,33, and 43, Yano discloses setting an amount of bandwidth desired for at least one of the applications, and reserving, by the server, the amount of bandwidth requested by the at least one of the applications (col. 3 lines 14-29).

17. Regarding claims 21,34, and 44, Yano discloses detecting, by the client, when one of the applications is inactive for a specified period of time, reporting, by the client to the server, that one of the applications is inactive when the detecting determines that the one of the applications is inactive for the specified period of time, and reallocating, by the server, the amount of the bandwidth to other applications after receiving a report from the reporting (col. 11 last paragraph through col. 12 1st paragraph).

Conclusion

18. Claim 50 allowed.

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19. Claims 7,8,13,14,25,26,29,30,46, and 47 objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

20. The following is an examiner's statement of reasons for allowance:

Prior art of record discloses variety of method to measure/calculate a perceived bit rate between a client and a server; however it fails to teach measuring a number of bits transmitted between the client and the server over a time period by cording to the following formulas:

Formula 1:

$$BR(i) = \frac{1}{T'} \left[\left(\sum_{j=0}^{N(i)-1} P_u(i-j) \right) + \left(P_u(i-N(i)) \cdot \frac{T' - \sum_{j=0}^{N(i)-1} \Delta T_u(i-j)}{\Delta T_u(i-N(i))} \right) \right],$$

where $BR(i)$ is a bit rate at an index time i , $T' = \text{Min} \left(T, \sum_{j=0}^i \Delta T_u(i-j) \right)$, T is the time period, $\Delta T_u(i-j)$ is a time difference from a first request sent from the second apparatus and a last response received by the second apparatus from the first apparatus within a $(i-j)^{th}$ transaction unit, $P_u(i-j)$ is a total amount of data exchanged during the $(i-j)^{th}$ transaction unit, and $N(i)$ is a largest integer, such that $\sum_{j=0}^{N(i)-1} \Delta T_u(i-j) < T$.

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Formula 2:

$$BR(i) = \frac{1}{T'} [BR(i-1) \cdot (T' - \Delta T_u(i)) + P_u(i)],$$

where $BR(i)$ is a bit rate at an index time i , $T' = \text{Min} \left(T, \sum_{j=0}^i \Delta T_u(i-j) \right)$, T is the time period, $\Delta T_u(i)$ is a time difference from a first request sent from the client and a last response received by the client from the server within an i^{th} transaction unit, and $P_u(i)$ is a total amount of data exchanged during the i^{th} transaction unit.

21. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Hou et al. U.S. Patent 6,515,965

Vaid et al. U.S. Patent 6,119,235

Vaid et al. U.S. Patent 6,341,309

Blackard et al. U.S. Patent 5,918,020

Vaid et al. U.S. Patent 6,292,465

Gopalakrishnan U.S. Patent 6,347,094

Rosenberg U.S. Patent 6,088,392

Robinett et al. U.S. Patent 6,351,471

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Phuoc H. Nguyen whose telephone number is 571-272-

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3919. The examiner can normally be reached on Mon -Thu (7AM-4: 30PM) and off every other Friday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, David A Wiley can be reached on 703-308-5221. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Phuoc H. Nguyen
Examiner
Art Unit 2143

October 14, 2004

Will C. Vaughn
Primary Examiner
Art Unit 2143
William C. Vaughn, Jr.